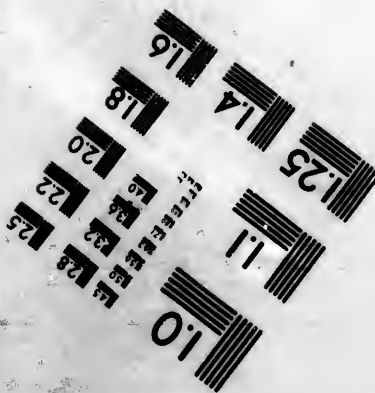
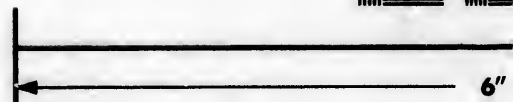
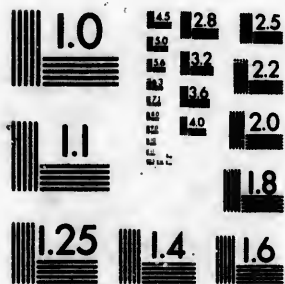
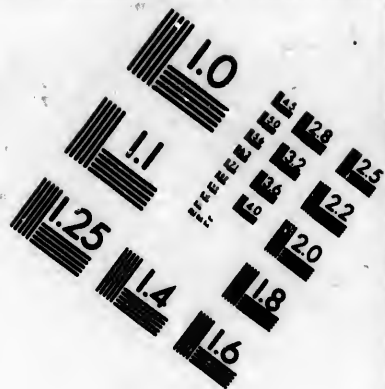


IMAGE EVALUATION
TEST TARGET

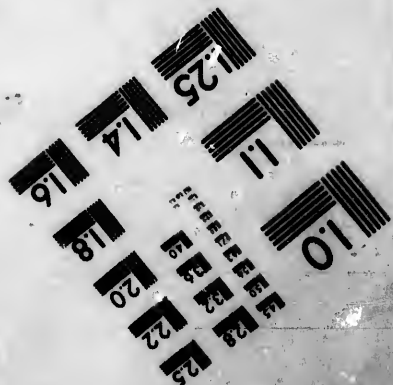


Photographic
Sciences
Corporation

**IMAGE EVALUATION
TEST TARGET (MT-3)**



6"



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 572-4503

**CIHM/ICMH
Microfiche
Series.**



Canadian Institute for Historical Microreproductions / Inst

© 19

CMH
ne

CIHM/ICMH
Collection de
microfiches.



Microreproductions / Institut canadien de microreproductions historiques

1981

Graphic Notes/Notes techniques et bibliographiques

the best
copies of this
issue,
if possible,
to change
the image
below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

or black/
(couleur ou noire)

pages/
couleur

or distortion

nombre ou de la
forme

attention may
possible, these

pages ajoutées
dans le texte,
ces pages n'ont

*Medical Journal
of Medicine*

to checked below/
action indiqué ci-dessous.

18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

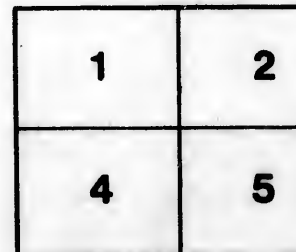
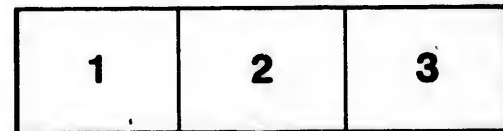
Library of Congress
Photoduplication Service

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



uced thanks

L'exemplaire filmé fut reproduit grâce à la
générosité de:

Library of Congress
Photoduplication Service

ut quality
legibility
th the

Les images suivantes ont été reproduites avec le
plus grand soin, compte tenu de la condition et
de la netteté de l'exemplaire filmé, et en
conformité avec les conditions du contrat de
filmage.

are filmed
ding on
ted impres-
ate. All
impres-
a printed

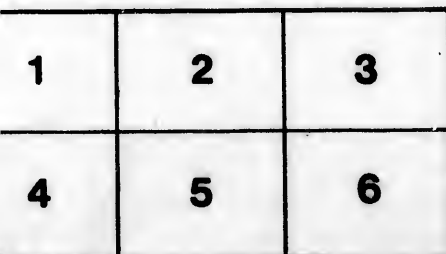
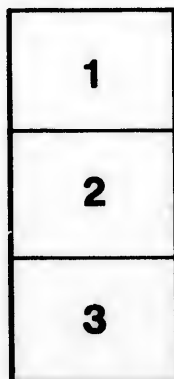
Les exemplaires originaux dont la couverture en
papier est imprimée sont filmés en commençant
par le premier plat et en terminant soit par la
dernière page qui comporte une empreinte
d'impression ou d'illustration, soit par le second
plat, selon le cas. Tous les autres exemplaires
originaux sont filmés en commençant par la
première page qui comporte une empreinte
d'impression ou d'illustration et en terminant par
la dernière page qui comporte une telle
empreinte.

offiche
g "CON-
"END"),

Un des symboles suivants apparaîtra sur la
dernière image de chaque microfiche, selon le
cas: le symbole \rightarrow signifie "A SUIVRE", le
symbole ∇ signifie "FIN".

ned at
arge to be
'filmed
r, left to
nes as
rate the

Les cartes, planches, tableaux, etc., peuvent être
filmés à des taux de réduction différents.
Lorsque le document est trop grand pour être
reproduit en un seul cliché, il est filmé à partir
de l'angle supérieur gauche, de gauche à droite,
et de haut en bas, en prenant le nombre
d'images nécessaire. Les diagrammes suivants
illustrent la méthode



The two men occupied a small cabin at a works where water-gas was used. The cabin was furnished with two burners, and was warmed by a stove which also consumed water-gas. The bodies were warm when discovered, death being quite recent. The gas had escaped from the stove, which was found turned on but unlighted. Two days after death a post-mortem examination was about to be made in a large room of 39,000 cubic feet capacity, when several of the medical men present were suddenly taken ill. The symptoms left no doubt that they also were suffering from the effects of a poisonous gas. It subsequently became known that eight jets were partially turned on, but unlighted, in the room where the bodies were about to be examined. Two days later (four days after death) a post-mortem examination was made. The post-mortem stains were pink, and rigidity well marked. The tissues were quite fresh. Pupils of medium size. Lungs generally dark, with bright patches. Heart and mediastinal tissues were bright in colour, as was also the mucous membrane of the trachea and bronchial tubes. The abdominal muscles were rosy-coloured; the small intestines were bright pink. Kidneys bright in colour but normal; liver the same. Mucous membrane of stomach florid and mottled. Brain vessels not unusually full, but more florid than usual. The spleen was not bloodless, as has been stated in carbonic oxide poisoning. On spectroscopic examination the blood was found to be charged with carbonic oxide hæmoglobin, and on analysis by a very ingenious method it was found to contain over .03 per cent by weight, or 29 volumes per 100 volumes of blood. The preservative effects of Hb CO on the blood and tissues is well illustrated by the fact that the remains of the viscera, which had been kept without preservative agents, were found quite fresh when examined two months after removal from the body. J. DIXON MANN.

FALK (Prof. F.). "Ueber postmortale Blut-Veränderungen."—*Ver-
teijahressch. f. gericht. Med.*, April, 1890.

THE question propounded in this paper is—What significance is to be attributed to the presence or absence of blood in the arteries after death as regards the manner or cause of death? The action of the vaso-motor apparatus is discussed, and a number of experiments were made on animals, with the view of ascertaining the constancy of post-mortem appearances under like conditions. The conclusion arrived at is—that the after-death appearances are by no means reliable as indicating the kind of death, nor whether death occurred with exceptional rapidity or not. Individual differences in irritability and exhaustibility of the vaso-motor system exercise so great an influence in determining the results, that the indications met with are to be interpreted with great caution. J. DIXON MANN.

SEYDEL (C.). "Ueber ein neues werthvolles Zeichen des Ertrinkungstodes."—*Vierteljahrssch f. gericht. Med.*, April, 1890.

THE following appearances were found in the bodies of twelve persons after death from drowning. The deaths took place in spring and summer, and the corpses were examined whilst quite fresh. The eyelids were sometimes of a blue-red colour and slightly swollen, sometimes they were unchanged and partly open. On that portion of the cornea which was uncovered, twelve or fifteen phlyctenular elevations, the size of a hay seed, and of a grey colour, were observed. In the less recent cases the epithelium over these spots had been destroyed, and the surface of the corneal tissue was shown. After enucleating the eyeballs it was seen that the portion of cornea covered by the eyelids was clouded and covered with a swollen epithelial layer. These appearances were more clearly seen when the eyeball was placed for some hours in 50 per cent alcohol. The conjunctiva was regularly injected, especially in its periphery. The colour of the injected membrane varied from pale red to dark violet, in accordance with the length of time the body had been exposed after removal from the water. In two cases, star-like, blue-red ecchymoses were seen in the injected surface. Whether similar appearances are to be met with in winter is uncertain, but, if so, probably longer time would be required for their development than in warm weather.

J. DIXON MANN.

NOTICES OF BOOKS.

"History and Pathology of Vaccination." By Professor E. M. CROOKSHANK. Two vols. London: Lewis, 1898.

THAT vaccination, if properly performed, reduces greatly the virulence of a succeeding attack of smallpox, and in the majority of cases confers complete immunity, would seem so well established—there is such abundant evidence in support of this opinion from individual cases, from smallpox hospitals, from bills of mortality at home and abroad, and from the history of smallpox epidemics—that it is at first sight difficult to comprehend how any one with sound intellect and ordinary powers of reasoning can uphold the opposite contention, and declare vaccination to be utterly useless, not to say mischievous. Certainly our views concerning vaccination have become modified; they are not the same as those promulgated when the operation first gained ground. This, however, is only what might be expected; from the nature of the case the limitations to the efficacy of vaccination could only be determined after

the lapse of many years. We admit freely that, when ten or twelve years have elapsed, a single inoculation in 75 per cent or more of the vaccinated does not bring about immunity; we believe that re-vaccination is necessary; we grant that even after revaccination some will be found who show themselves susceptible to smallpox, and we acknowledge that much depends upon the number, quality, and extent of the vaccine vesicles, and of the resultant scars. Having made these admissions, we would assuredly appear to stand upon firm ground.

Yet this position, strong as it undoubtedly is, has never been exempt from assault, and of late years especially constant attacks have been made upon it. That very belief in the efficacy of vaccination which led to the Act of 1870 strictly enforcing this practice, has, from that most marked trait in the English character, the hatred of any restriction upon the liberty of the individual, raised up a host of opponents to vaccination, the opposition in the first place not being directed so much against the effects of the practice as against the principle of compulsion. And the example set by the town of Leicester has already had wide-spread consequences.

But again, there are not a few points in connection with vaccination that are very far from having received their final explanation. Judging from the results of the method, the medical profession, with singularly rare exceptions, and by far the greater bulk of the public have been content to accept the practice without possessing any assured pathologic basis for it. Jenner had from the first implicitly declared vaccinia to be the smallpox of the cow, to be, in fact, modified smallpox; and though at a later date Ceely and Badcock in this country, and Thiele and others on the Continent, all appear to have succeeded in inoculating the cow with smallpox, and to have thus gained a new and active vaccine lymph, many other observers, notably Chauveau and Klein, have been unable to obtain the same results, and the exact nature and relations of vaccinia is still in doubt, despite the number of investigators and the long period over which their investigations have been spread. Indeed, the want of unanimity on the part of observers has formed one of the most powerful weapons in the hands of the anti-vaccinators:—"You have not proved that vaccinia is modified variola; vaccinia and variola are two distinct diseases. It is absurd, therefore, to attempt to confer immunity against one disease by inoculating with another; vaccination, consequently, is a useless procedure. Your statistics and all your evidence are equally useless." This line of argument, broadly speaking, is that which of late has been most insisted upon. It is, at first sight, a strong line, and it is in this direction that the opponents of vaccination obtain most valuable support from the members of the medical profession of no small ability, from Dr. Creighton

and Professor Crookshank. There can be no question that the whole subject of the pathology of vaccinia requires a study more full, more accurate, and more scientific than it has as yet received, and as a means to this end the writings of these two controversialists, and the investigations of the Royal Commission now sitting, are most timely and most welcome, inasmuch as they indicate the direction in which we must turn our attention in order satisfactorily to solve the undoubted difficulties that exist.

The views of Dr. Creighton are by now well-known. His article in the "Encyclopædia Britannica," and his more recent writings, well define his position. A study of the article above mentioned, shows that his main contentions are the difference between vaccinia and variola, and the unsatisfactory nature of the statistics of the supporters of vaccination. The practice is not directly attacked, but the evidence that is against it is carefully presented; whereas that in its favour is little dwelt upon. Yet Dr. Creighton definitely admits its value when properly performed, for he gives the following table:—

TABLE VIII, showing the number and kind of arm marks in 379 fatal cases of small-pox at Homerton Hospital, 1871—80 (Gayton):—

VACCINAL MARKS.	ADMISSIONS.		DEATHS.		MORTALITY PER CENT.	
	Under 10 years.	Over 10 years.	Under 10 years.	Over 10 years.	Under 10 years.	Over 10 years.
4 good	56	247	0	4	0·0	2·5
3 good	44	388	0	12		
2 good	41	523	1	19	2·4	4·1
1 good	43	422	1	20		
4 imperfect	91	317	3	17	3·0	6·9
3 imperfect	107	545	3	43		
2 imperfect	142	930	17	92	12·5	12·6
1 imperfect	138	820	18	129		

It is not, however, my purpose here to discuss at length Dr. Creighton's views. His statements have doubtless been well sifted by the Royal Commission, and we must wait for the publication of the next portion of the evidence given before that body, for what should be an exhaustive examination of those statements. Rather I wish to show here, in passing, that although not a thorough supporter of the practice of vaccination, he does not wholly deny its utility, and that the article in question is not, as too often quoted, written absolutely in refutation of the practice.

Professor Crookshank's work I purpose examining in fuller detail. The two large volumes, containing together close upon 1,000 pages, are like all the books brought out by him, presented in a most admirable form; the paper is good, the letterpress large and clear, the illustrations excellent. There is but one drawback to the reader's content, but that

a most serious one. No index is provided, and the critic is in full sympathy with the declaration: "The man who publishes a book intended for serious study, without providing an index, is deserving of six months' imprisonment with hard labour: there are few extenuating circumstances." We see none here, and the labour of searching for references through even 500 of these 1,000 pages without any clear indications as to where the required statements may be found, is as aggravating as it is considerable.

Of the two volumes, the second is a most valuable collection of early and more recent pamphlets and works upon the subject of vaccination. With scarce an exception, these are difficult to procure in a separate form, and our hearty thanks are due to Professor Crookshank for the happy idea of bringing them together. The importance of the collection may be estimated when it is stated that the volume contains among others: Jenner's "Inquiry into the Causes and Effects of the Variolæ Vaccinæ," 1798, Pearson on "The History of the Cowpox," 1798, Woodville's Reports upon his first series of Inoculations for the Cowpox, 1799, Loy, of Whitby's, account of his experiments upon the Inoculation of Cows with the Horse Grease, 1801, Bousquet on Cowpox discovered at Passy, near Paris, 1836, Eatlin, on "A Fresh Vaccine Virus," 1837-38, Ceely's Admirable Investigations, 1840 and 1842, and Badcock, the Brighton chemist's account of his Inoculations of Cows with the Smallpox, and production of Vaccine Lymph, 1845. These are the classical works of vaccination literature.

Of the contents of the first volume it is impossible to speak with equal satisfaction. Undoubtedly, Professor Crookshank has most carefully studied the early history of the subject, and the results of his researches are very fully given. Yet this is not the whole history. The extension of the practice in later years, and especially in this country, the history of the causes which led Parliament to enforce constantly more and more stringent laws, any exact record of the effects of vaccination, of its immunity conferring power, all these subjects are passed over with the slightest possible treatment. And when we come to enquire into how far the work may claim to give an account of the pathology of vaccination, the incompleteness of the attempt is even more striking. While a large amount of pathological information is mingled with the history, nowhere is there a clear succinct account of the course of the eruption, or of the sequelæ and the complications that may ensue. Not a word is said about the minute anatomy of the vesicle, and the minute differences between the pocks of variola and vaccinia, and the whole subject, admittedly a most debatable one, of the bacteriology of the two affections is passed by unheeded. As a "History and Pathology of Vaccination" the work is imperfect, if written for scientific readers,

that is; if written for the general public, then, most certainly, the excellent coloured illustrations should not have been included. The non-medical mind will see in these only that which is hideous and utterly repulsive, and must in consequence become biased against cowpox. In this connection also Professor Crookshank's tendency to dwell upon the foul ulcerous condition that the cow's teats and udder may assume as the result of manipulation in the course of an attack of the cowpox is strongly to be deprecated. It goes without saying that it would be utterly useless to attempt to obtain a successful lymph from an animal in this state.

J. G. ADAMI.

(To be continued.)

"Cyclopædia of the Diseases of Children, Medical and Surgical: The Articles written especially for the work by American, British, and Canadian Authors." Edited by JOHN M. KEATING, M.D. Vols. I. and II. Illustrated. Philadelphia: J. B. Lippincott Company.

THE appearance of the second volume enables us to form a much more just opinion as to the probable value of this important work as a whole, than was possible after a perusal of the first volume only; and certainly the second more than upholds the reputation gained by the first, and justifies us in speaking of this encyclopædia as being without an equal.

The volumes are somewhat ponderous, but this was inevitable, and not a serious drawback to a book of this description. The general get-up leaves nothing to be desired—paper, printing, and binding being alike excellent.

Each volume is complete in itself, with lists of authors and subjects, paged lists of plates and figures, and, what is most valuable in large and many-volumed works, a really good index. Whether a condensed general index will be issued with the last volume we cannot say. We hope that it may be found possible to provide one, as it would add materially to the usefulness of the work as a book of reference, and prevent it from sharing the fate of many other large books of remaining on our shelves almost unconsulted, simply for want of this ready means of finding in its pages that of which we are in search.

Having in our first sentence spoken of the work as a whole in terms of very high praise, we feel bound to point out what appear to us to be its defects and shortcomings, and its very excellence demands that they should not be too lightly passed over.

Certain defects are inherent to the very nature of a work such as this, which is "a collection of monographs," and it would be unreasonable to expect that it should be otherwise; yet, in the reduction to a minimum of these defects lies the proof of the editor's judgment, skill, and tact,

NOTICES OF BOOKS.

"History and Pathology of Vaccination." By Professor E. M. CROOKSHANK. Two vols. London: H. K. Lewis, 1889.

(Continued from page 253.)

IN reading Professor Crookshank's critical enquiry into the history and pathology of vaccination, it is impossible not to be struck by the peculiar mental attitude displayed by the writer. There is a very evident desire to be candid and exact, combined with a tendency to dwell upon each point, however small and insignificant, that tells against protective inoculation and its supporters. Yet, at the same time, the whole matter is left in the vaguest condition; it is almost impossible to say clearly what are Professor Crookshank's own views—whether he believes that vaccination is, to a certain extent, protective, or whether he is wholly opposed to it; one is led to doubt whether he has a single clear conclusive opinion upon the subject. A few examples may be given in illustration of the above statements.

In 1721—the year that Dr. Maitland, at the suggestion of Lady Mary Wortley Montagu, introduced the practice of inoculation into London—Dr. Boylston began the practice in the United States, at Boston. He was not wholly successful, and would, indeed, seem to have inoculated indiscriminately. In consequence, at a public meeting in the Town House, a report was accepted condemning the practice. Boylston expressed his disapproval of this report, stating that with regard to what was therein said concerning the natural smallpox, "It is a thousand pities that our Select Men made so slight and trifling a representation of Smallpox, that had always proved so fatal in New England. . . ." Professor Crookshank remarks: "It would appear from this, that in order to make converts to inoculation, it was necessary to keep alarming accounts of the natural Smallpox before the eyes of the public." Such carping criticism looks strangely like an endeavour to see but one side of the case. Again, in the chapter headed: "The Traditions of the Dairy Maids," the writer begins by discussing why it is that we have no evidence of a belief in the protective power of cowpox prior to the practice of inoculation. He implies, and we are inclined to agree with him, that the "Tradition" arose consequent upon smallpox inoculation, and then it is stated, "The dairy folk could not be expected to distinguish between inoculated Smallpox and Smallpox caught in the natural way, and the fact that some Cowpoxed milkers were proof against inoculation, was so interpreted as to afford a foundation for the popular belief that they were for ever after secured from the danger of

catching the Smallpox." What is the meaning of this sentence? Does Professor Crookshank wish to imply that natural and inoculated smallpox are different diseases, or that the cowpox protects against the one and not against the other? Is it an admission that some cowpoxed milkers had been truly protected against smallpox, or is it an example of the stupid reasoning of the dairy folk? All we know is that the sentence leaves a vague feeling that the dairy folk were in the wrong, and the rest of the chapter does not further enlighten us. We are never once definitely informed whether the mass of evidence supplied as to protective inoculation with cowpox in the pre-Jennerian era, is to be accepted or to be dismissed as valueless, that is to say, as not proving the power of the cowpox to confer immunity against smallpox. But the interesting accounts, more or less authenticated, of cowpox inoculation, as performed sporadically long before the attention of the medical public in general had been drawn to its advantages,—with the detailed statements of the observations of Nash in 1781, of Rolph, of Dolling Fewster, Lettsom, Bragge, and especially of Benjamin Jesty (1774), a Dorsetshire farmer—all these apparently are not so much mentioned to prove or disprove the adequacy of the immunity produced by cowpox, as to draw attention to the fact that Jenner was far from being the first to show the advantages of the procedure—a fact which we had thought was universally admitted now-a-days. So far as I can make out, Professor Crookshank's main object is to prove, first of all, that Jenner is not deserving of any honour in connection with the discovery of vaccination, and then to show that this discovery is not a discovery, that it is without value. Had he proved, or attempted to prove, that latter thesis first, he would have been saved all the trouble that he has taken over the former. One is, in fact, reminded of the old story of the counsel apologising for his client's non-appearance, and stating, *seriatim*, the twenty reasons why he was not present, the twentieth being, "and please your Lordship, my client is dead."

Professor Crookshank evidently has the lowest opinion of Jenner. No less than 160 pages are devoted to a laborious, minute, and querulous examination of his life and works; not a single word of praise is vouchsafed to him, which even if he were wholly wrong might, without degrading the author, have been granted in recognition of years spent in constant endeavour to promote his views; rather, the work performed is, as far as possible, minimised, and we are left with the impression that Jenner was a charlatan, purposely propounding false views for his own glory, and being at every stage indebted to others for such of his facts and of his theories as are of influence at the present day. Because one enthusiastic biographer draws inferences from certain anecdotes of his early life, and others do not make use of these anecdotes, therefore the

Notices of Books.

anecdotes are to be doubted, and the fact that the inferences are rather far-fetched, is made use of to further discredit Jenner's history. It is as though a leading politician of the present day is to be belittled because sundry admirers have found inspiration in the undeniable fact that, as an undergraduate, he rejoiced in the "Camptown Races," and other choice effusions of neo-negro minstrelsy, whereas other admirers pass over the matter in silence. There is evidence given by one early biographer that, in 1770, when he was a pupil to the Messrs. Ludlow, at Sudbury, Jenner had his attention called to the subject by seeing a young woman who declared herself protected inasmuch as she had taken the cowpox. In 1780 he mentioned his views at length to his friend Gardner. In 1787 he called his nephew's attention to the heels of a horse suffering from the "grease," and declared to him that there was the source of smallpox; the next year he exhibited a drawing of the cowpox eruptions in London; and finally, in 1798, was published his "Inquiry," and armed with these facts, and with the statement of Fosbrooke that up to 1795 Jenner was not *burdened* with the labours which vaccine had generated, Crookshank makes the point of asking why Simon should state: "Thirty years elapsed before the fruit was borne to the public; but incessantly he thought, and watched, and experimented on the subject." Such criticism is small. The writer does not in any way show that Jenner was not for long years intensely interested in the subject: all that he does is by pages of discussion to throw some slight doubt upon a statement whose force is pardonable. The same absurdly extensive criticism of minutiae vitiates the whole criticism of Jenner's life and letters. Case after case might be given in support of this contention, but to mention all would alone occupy far more space than is at my disposal. I can but call attention to Professor Crookshank's treatment of the publication of the "Inquiry into the causes and effects of the Variola Vaccinae." The first paper was, in 1796, transmitted to Home, with the intention of having it printed in the "Transactions of the Royal Society," but Jenner abandoned the idea and resolved to publish his communication as a pamphlet. This was done in June, 1798. In the library of the College of Surgeons is a manuscript copy of what is evidently an early draft of the paper; this had been in the possession of the Jenner family until it passed to Sir James Paget, and then by his gift to the Library at Lincoln's Inn Fields.

Professor Crookshank, without assigning sufficient reasons, treats this throughout as the paper presented to the Royal Society, and then proceeds to criticise the differences that exist between it and the printed pamphlet. These differences, save where merely verbal, are, taking all things into consideration, singularly slight. When revising a paper for the press, several months after it was first written, with so many months'

more study of this subject, who would not remove expressions that appear inconsequent, and emphasise still more passages which are felt to be important, adding, where necessary, further information. Conduct of this nature is natural and inevitable, yet from the way in which Professor Crookshank dwells upon the matter, going so far as to publish the pamphlet, with annotations showing where it differs from the draft copy, it is evident that he wished to imply that Jenner's "system of modifying his original observations" is dishonest and worthy of censure. It is difficult to see how the critic's action can be otherwise construed.

But Professor Crookshank, through preconceived notions and a desire to cast doubt upon the *bona fides* of Jenner and his biographers, is guilty of a grievous blunder in connection with this matter of the publication of the "Inquiry." He declares that the early MS. above mentioned is the one which was presented to the Royal Society, and acting on the assumption that it was formally so presented, and that it was rejected, he convicts Baron of suppressing the details in connection with the incident. But Professor Crookshank ought to know that all papers sent to the Royal Society to be published in the "Transactions," even when rejected, are preserved in the Society's archives. From all that I can learn Jenner's paper is not there, and the College of Surgeons' MS. had belonged to the family. Everything points to the probability that the original idea was to publish the paper in the "Philosophical Transactions," that it was brought before the Council of the Royal Society, that it was provisionally accepted, and returned to Jenner in order that he might modify it in certain respects; and that then, having it again in his possession, at the suggestion of his friend Worthington, he altered his plans and determined to publish it in pamphlet form. But assuredly it never suffered the indignity of being rejected by the Royal Society, and Baron, it would seem, only stated the simple truth when he wrote "It was his intention that it should first have appeared before the public in the 'Transactions of the Royal Society;' but this design was abandoned, and the work appeared as a separate publication."

Then, again, with regard to the treatment of Jenner's distinction between true and false cowpox. At a later period our author admits that there are several eruptive diseases which may be mistaken for cowpox; yet when Jenner states—"The true has many imitations by the false on the cow's udder and nipples; and all is called Cowpox, whether on the cow or communicated to the human animal," no acknowledgment is given of the possible correctness of the view. Jenner, we are told, "keenly felt the necessity for disseminating, far and wide, the doctrine of spurious cowpox, which would cut away the ground from under the feet of a host of objectors." This can scarcely be called straightforward treatment. But Professor Crookshank seems determined to discover a

sinister explanation for each step undertaken by Jenner, and we are left here with the impression that spurious cowpox is but a weapon forged to defeat the early opponents of vaccination.

It is impossible to feel the very highest admiration for Jenner and for his character, yet Professor Crookshank forgets that it is the very traits of that character that allowed him to accomplish all that he did. To be the leader of a successful social movement, in these days, it is absolutely indispensable to have a most complete belief in the rectitude of one's movements: to be determined to advance one's views in season and out of season: to grasp at everything, however minute, that favours the cause: to be by nature blind to whatever seems, at first sight, to contradict one's opinions. The man who possesses these attributes may not be a fine character, but assuredly, if the cause be good, or even if it be bad, such an one is most fitted to advance it and to command success. He who weighs cautiously the pros and cons can never be a leader of men. And in depreciating Jenner's services to the process of vaccination, Professor Crookshank is throughout heedless of the truth that he is entitled to the honours of a discovery, who, by his genius brings together the facts bearing upon it into a connected whole, and who publishes the discovery in a form so clear and so convincing as to render it of service, and acceptable to his fellow-creatures. Others, for example, may have made out individual facts with reference to the blood-flow—we will even admit, for the moment, that others may have previously comprehended the nature of both the systemic and the pulmonary circulation—yet their views had not been so brought forward as to gain acceptance, and it is Harvey, with his work, "*De Motu Sanguinis*," who deserves honour as discoverer of the true nature of the circulation. And with our present knowledge of the facts concerning the general adoption of vaccination, we can unhesitatingly say that Jenner stands *facile princeps* among all the workers in this line of medical research, and that he, of all, deserves honour.

Turning to what Professor Crookshank has to remark upon the pathology of vaccination, here again there is the same distressing want of clearness, although the chapters dealing with this subject are full of most interesting matter, the result of diligent investigation. All that he writes certainly shows that the pathology of cowpox is in a most unsettled condition, yet the evidence that he brings forward that cowpox and smallpox are two distinct diseases cannot be considered conclusive. Following Auzias-Turenne and Croighton, he draws the distinction that cowpox is strictly analogous to syphilis, whereas smallpox is not, yet the simple fact (and practically the evidence brought forward amounts to little more) that inoculated syphilis and inoculated (virulent) cowpox produce a similar succession of primary changes is very far from

proving this contention. To continue this line of argument to the *reductio ad absurdum*, it may with equal truth be said that, under certain conditions, the eruptions of inoculated cowpox and smallpox greatly resemble each other, therefore smallpox is strictly analogous to syphilis! Where is the line to be drawn?

But even granting what, although inclined to believe, I cannot in any way hold Professor Crookshank to have proved, that cowpox and smallpox are two distinct diseases, this does not lead to the conclusion here drawn, that therefore inoculation with the one cannot protect against the other. It shows an ignorance of recent observations—not so recent, however, that Professor Crookshank might not have incorporated them into his work—to state that the “protection from one disease by the artificial inoculation of a totally distinct disease,” is “a principle which was not, and which has not been since, supported by either clinical experience or pathological experiments.” There are such experiments by Pawlowsky, Gamaleia, and others, with reference to the antagonistic action of the erysipelas and anthrax and other micro-organisms, and I hold it quite possible that by working along these lines it will be eventually possible to reconcile the present divergent views upon the pathology of vaccination.

To conclude, we regret, as doubtless he himself bitterly regrets, that Professor Crookshank should have decided to bring out a work so inconclusive and immature—a work which, with every allowance for honesty of purpose, cannot be said to add to the reputation of its author, either as an acute reasoner or as a profound pathologist.

J. G. ADAMI.

“Cyclopædia of Diseases of Children.” Edited by J. M. KEATING, M.D.
Philadelphia: Lippincott and Co. Edinburgh and London: Young
J. Pentland.* (Second Notice).

PART II. opens with a paper, by Dr. Pasteur, of the North-Eastern Hospital for Children, London, devoted to a general consideration of fever and its treatment, which, though full of interesting matter, strikes us as being disappointing and unsatisfactory. There is no denying that the temperature is more sudden and erratic in its variations, and more easily influenced by slight causes in children than it is in adults, but we think that Dr. Pasteur unduly depreciates the value of temperature observations. We fully agree with him as to the necessity for frequent observations; a night and morning reading only is often absolutely misleading.

* The English Publishers desire us to call attention to the fact that this work is being published in England and America simultaneously.



